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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/723,442  | 11/26/2003  | Ernie Lin            | 12203-007001        | 5974             |
| 26161   | 7590        | 12/14/2005           | EXAMINER            |                  |
| FISH & RICHARDSON PC<br>P.O. BOX 1022<br>MINNEAPOLIS, MN 55440-1022 |             |                      | TRAN, TUAN A        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2682                |                  |

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/723,442             | LIN ET AL.          |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Tuan A. Tran           | 2682                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 4, 6-8, 10-13, 15-18 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow (6,552,640).

Regarding claims 1, 4 and 16, Liebenow discloses an apparatus comprising: a base unit 78 (See fig. 4) for coupling to a telephone line, wherein the base unit 78 includes a transmitter 80 for modulating a voiceband data signal received over the telephone line and transmitting the modulated signal over a wireless medium (See figs. 2, 4 and col. 5 lines 1-20, lines 37-52, col. 7 lines 12-24); and a remote unit 21, 32 for communicating with the base unit 78 over the wireless medium, wherein the remote unit 21, 32 includes a receiver for receiving the modulated signal over the wireless medium and demodulating the voiceband signal, and an interface to a modem circuit 21 for echo canceling and decoding a data stream encoded in the voiceband signal (See fig. 2 and col. 4 lines 33-67, col. 5 lines 22-36). However, Liebenow does not mention that the base unit includes a level control circuitry coupled to the transmitter that controls a level of the voiceband data signal to be substantially in a linear range of the transmitter. Since Official Notice, taken by the Examiner, that level control circuitry such as AGC

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(automatic gain control) coupled to the transmitter to keep the gain (signal level) of the transmitter within linear amplification region is common in the art; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add the AGC for the advantage of reducing distortions as well as adjacent channel interference.

Claim 17 is rejected for the same reasons as set forth in claim 1, as method.

Regarding claim 6, Liebenow discloses as cited in claim 1. However, Liebenow does not mention that the data signal is transmitted using FSK modulation. Since FSK modulation is well known in the art; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use FSK modulation for modulating the data signals for the advantage of expanding the capability of the system to various modulation schemes.

Regarding claims 7-8, Liebenow discloses as cited in claim 1. Liebenow further discloses the remote unit 21, 32 is in communication with the base unit 78, the remote unit 21, 32 receiving an original voiceband data signal from the computer, generating an RF modulated signal based on the original signal from the computer, and transmitting the RF modulated signal to the base unit 78, wherein the remote unit 21, 32 includes an RF transmitter and an RF receiver, the remote unit 21, 32 establishing wireless communication with the base unit 78 via RF transmitter and receiver and communicating with the computer via a wired link (See fig. 2 and col. 4 lines 33-67).

Regarding claims 10, 11-13 and 15, Liebenow discloses as cited in claim 7. Liebenow further discloses the remote unit 21, 32 can operate in wireless mode and

wired mode (See fig. 2 and col. 6 lines 42-54). The remote unit 21, 32 inherently includes a switch for automatically selecting the mode for transmitting/receiving the data signals in response to presence or absence of a wired and/or wireless connections.

Regarding claim 18, Liebenow discloses as cited in claim 17. Liebenow further discloses the base unit 78 passes the voiceband signals between the telephone line and the remote unit 21, 32 without performing echo cancellation on the voiceband signals (See col. 5 lines 1-21).

Regarding claims 20-21, Liebenow discloses as cited in claim 1, Liebenow further discloses the remote unit 21, 32 comprises a modem circuit 21 coupled to the remote unit 21, 32, wherein the modem circuit 21 includes an echo canceller for reducing echoes on the demodulated voiceband data signal and a CODEC for decoding the voiceband data signal (See fig. 2 and col. 3 line 56 to col. 4 line 3, col. 4 lines 33-50).

2. Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow (6,522,640) as applied to claim 4 above, and further in view of Brandt (4,727,535).

Regarding claims 5 and 18, Liebenow discloses as cited in claim 1. However, Liebenow does not mention that the base unit introduces at least some echo of the voiceband signals passing from the remote unit into voiceband signals sent to the remote unit and AGC circuit uses a DC current of a telephone loop to set a gain level for the original signal at a beginning of communication, the gain level remaining

substantially constant during communication. Brandt teaches a coupling device (See fig. 1) comprising a circuitry which introduces at least some echo of the voiceband signals passing from the coupled device into voiceband signals sent to the coupled device and which maintains a peak voltage excursion of the composite data signal within a linear amplification region of the transmitter, wherein the circuitry comprises an AGC circuit and wherein the AGC circuit uses a DC current of a telephone loop to set a gain level for the original signal at a beginning of communication, the gain level remaining substantially constant during communication (See figs. 1-2 and col. 3 lines 50-56, col. 5 lines 49-59). Since both the Liebenow's base unit and the Brandt's coupling device act as a telephone network interface; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the base unit with the circuitry as disclosed by Brandt for the advantage of maintaining circuit isolation and automatic gain control.

3. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liebenow (6,522,640) as applied to claim 1 above, and further in view of Henderson (6,611,681).

Regarding claim 9, Liebenow discloses as cited in claim 1. However, Liebenow does not mention that the remote unit includes a ringer emulator coupled to the receiver for receiving a ring indication signal wherein a ring signal is detected in the base unit and transmitted as the ring indication signal over the wireless medium to the remote unit. Henderson teaches a cordless telephone system wherein the cordless handset

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includes a ringer emulator for receiving a ring indication signal wherein a ring signal is detected in the base unit and transmitted as the ring indication signal over the wireless medium to the handset (See fig. 2 and Abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the Henderson's teaching in modifying the Liebenow's system for the advantage of notifying users about the incoming call in order to establish the communication.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bullock et al. (2002/0049036).

### ***Response to Arguments***

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

a. The Applicant argued that Liebenow, in which the voiceband signal is decoded in the CODEC to produce the data signal, and the data signal rather than the voiceband is send over the wireless medium, is in contrast with the amended claim 1. The Examiner respectfully disagrees with the Applicant's arguments because the base unit, as disclosed by Liebenow, modulates a voiceband data signal received over the telephone line and transmits the modulated signal over the wireless medium (See col. 5 lines 1-20, 37-52). Liebenow reads perfectly on the argued subject matter of the

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amended claim 1. For that reason, the Examiner maintains Liebenow as prior art of the rejections.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Tran whose telephone number is (571) 272-7858. The examiner can normally be reached on Mon-Fri, 10:00AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

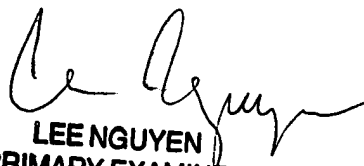


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan Tran



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PRIMARY EXAMINER